Malawi
1998/99
Current Vulnerability Assessment
December 1998

Famine Early Warning System Project

U.S. Agency for International Development

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Abbreviations

GOM	Government of Malawi
CVA	Current vulnerability Assessment
MK	Malawi Kwacha
ME	Maize equivalent
MT	Metric Ton
EPA	Extension Planning Area
WFP	World Food Program
NGO	Non-Governmental Organization
MASAF	Malawi Social Action Fund
ADD	Agricultural Development Division
EU	European Union
WHO	World Health Organization
ADMARC	Agricultural Development and Marketing Corporation
DFID	Department of Foreign and International Development
VGF	Vulnerable Group Feeding
NRU	Nutritional Rehabilitation Units

Executive Summary

This current vulnerability assessment considers the effect of events during the April 1997 to March 1998 period on the ability of populations to meet their food needs between April 1998 and March 1999.

The 1997/98 agricultural season was generally good despite the threat of El Niño-induced drought. Malawi is one of the few countries in the region that escaped the adverse weather conditions that affected parts of the region as result of El Niño. The country generally experienced normal to above-normal rainfall in 1997/98, more than it received the previous season. As a result of the good season, smallholder production for most crops was above the 5-year average (1992/93–1996/97). Crop production would have been higher had it not been for the excess rains and flooding in localized areas across the country, a 2- to 3-week dry spell in mid-February in some parts of the central and southern regions and an early cessation of the rains in Shire Valley and Blantyre Agricultural Development Divisions (ADD).

National availability is estimated at 2,518,173 MT in maize equivalents (ME), leaving a 129,247 MT ME net import requirement. At the beginning of the 1998/99 consumption year (April 1, 1998), estimated opening stocks were 12,266 MT of maize. This low level of opening stocks primarily results from insufficient imports during the 1997/98 consumption year when Malawi imported only 76,891 MT of maize compared to an estimated ME import requirement of 315,000 MT. Planned ME imports for the 1998/99 consumption year are projected at approximately 208,000 MT. Of this total, 47,000 MT are imports contracted for the 1996/97 consumption year that arrived after April 1, 1998. Another 120,000 MT are ADMARC-planned imports, 30,000 MT are planned food aid imports and the balance are private-sector commercial imports. Subtracting total availability (production, stocks and planned imports) from estimated total utilization requirements for food and seed leaves a positive ME food balance of 78,355 MT at the national level.

Despite this good outlook for national availability, the planned ADMARC imports will come at a high cost to the Malawi government (GOM). The maize, which is to come from South Africa and Zimbabwe, is estimated to have a landed cost of MK11/kg, but ADMARC will be selling it at MK6.50/kg. GOM is subsidizing the maize to make sure that the poor can afford it. In addition, high inflation following the rapid 56 percent fall in value of the Malawi kwacha in August this year will add to the import bill in kwacha terms. The devaluation of the kwacha has resulted in skyrocketing commodity prices, including market and ADMARC-subsidized maize prices. The ADMARC price increased from MK3.90/kg to MK6.50/kg between September 1997 and September 1998. Higher prices will have serious implications on household food security as the purchasing power of consumers continues to be eroded.

Based largely on an analysis of EPA-specific harvest outcomes, this CVA identified 22 of Malawi's EPAs as food insecure. These EPAs produced between 5 and 70 percent below average, and average EPA-level income from agricultural production is insufficient to ensure household food security until the next harvest in April 1999.

GOM, in collaboration with donors, needs to put in place a safety net mechanism targeting populations in the EPAs that have been identified as food insecure. An emergency operations program (EMOP) was issued for a safety net program to address the transitory food insecurity problem that was created by low food production and sharp increases in food prices and other essential commodities following the sharp devaluation of the currency in August 1998.

Because this CVA is based mainly on an analysis of the harvest outcome, it will be imperative to continually monitor the situation in all the EPAs, including those considered as food secure. This is necessary because even in the food-secure EPAs, there are always pockets of food insecurity that are not captured in the EPA analysis. To better understand the situation at the lower level, additional information needs to be collected, particularly in areas suspected as experiencing access problems.

Since the relief program needs to be implemented in so many areas, all the supplies must be transported to the distribution centers before the peak of the rainy season (December to March), when some areas become inaccessible due to the deterioration of the roads and bridges in the rural areas.

Reference Map[1]

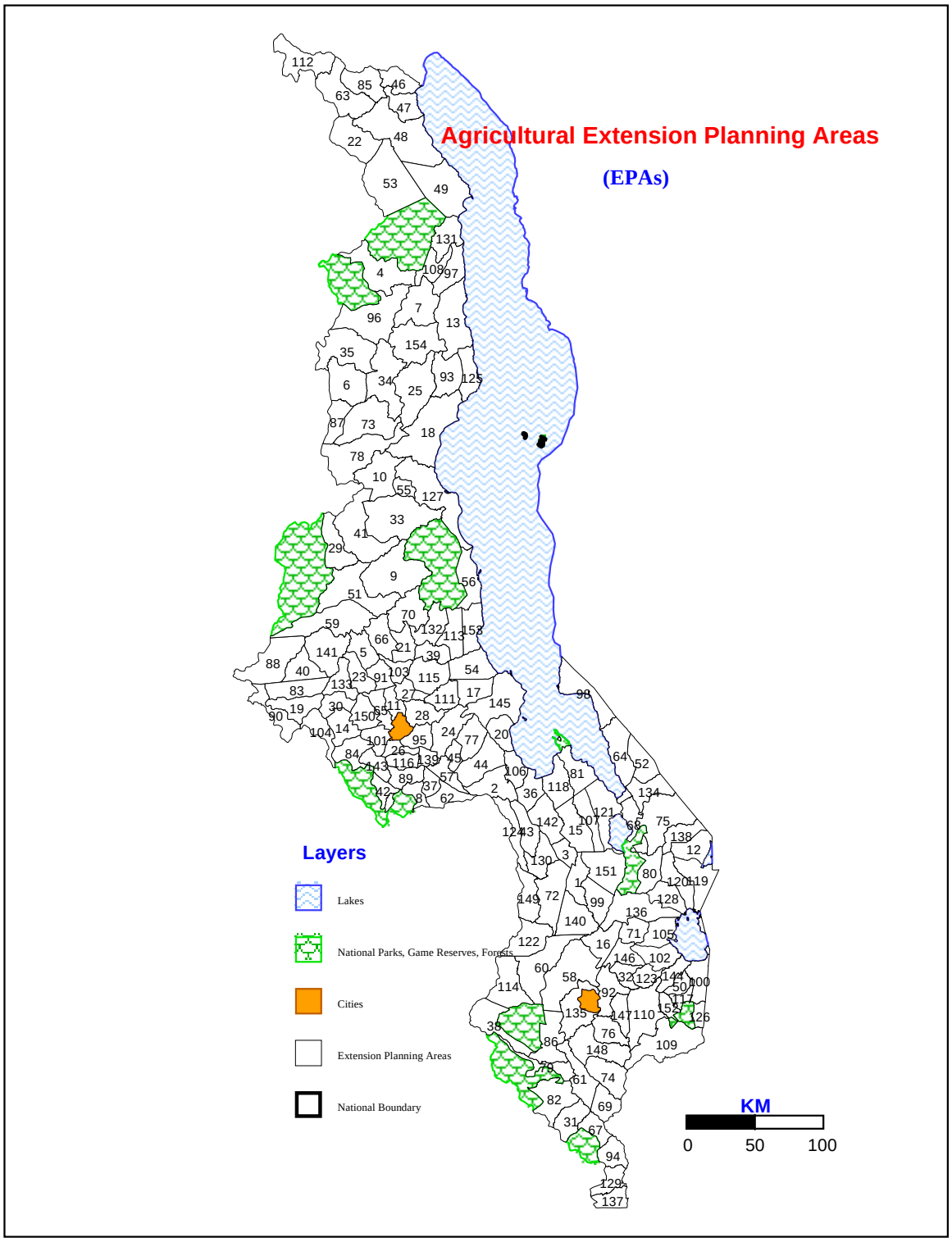


Figure 1

[1] See appendix for EPA names

I. Introduction

This CVA focuses on current or transitory food insecurity. It analyzes the impact of recent events on the ability of smallholder households to meet their food requirements between April 1998 to March 1999 (the current consumption period) and describes the extent to which various populations are food insecure. It provides a basis for determining where concerted monitoring and possible interventions, including emergency food aid, may be needed.

Food security is a measure of whether an individual, household, community or any population group has access to sufficient safe and nutritious foods that meet dietary needs and food preferences for an active life. There are two important aspects of food security: food availability and food access.

> Food availability is defined as the amount of food which is, and will be, physically present in the country during the current consumption year.
>
> Food access refers to a household's ability to acquire that "available" food, either through its own (on-farm) production, market transactions (cash or in-kind) or transfers (private or government) for the current consumption year.

The objective of this report is to present food availability at the national level, in the form of a national food balance sheet, and to identify the populations at the Extension Planning Area[2] (EPA) level that are likely to experience food access problems before the next major harvest in April 1999.

The target audience of this CVA is the community concerned with early warning and food security in Malawi. Previous CVAs have been used by WFP, NGOs and the Government (Relief and Rehabilitation, Malawi Social Action Fund (MASAF)) to target relief interventions. These interventions include vulnerable group feeding programs, food for work and public works programs.

[2] The Extension Planning Area (EPA) is the fourth-level administrative planning unit for the Ministry of Agriculture and Irrigation, with the third, second and first being the Rural Development Project (RDP), Agricultural Development Division (ADD) and the nation, respectively.

II. NATIONAL AND SUBNATIONAL FOOD AVAILABILITY

A. National Food Availability

1. Domestic Availability

The two main components of domestic food availability are national food production and food stocks.

a. Production

Malawi is one of the few countries in southern Africa that escaped the adverse weather conditions that affected parts of the region as a result of El Niño. The country generally experienced normal to above-normal rainfall in 1997/98. Rainfall was also generally more plentiful than during the 1996/97 season.

As a result, in the smallholder sector[3], production levels for most crops in 1997/98 were above the 5-year average (1992/93-1996/97) and last year's levels (table 1). However, crop production was lower than anticipated due to excess rains and flooding in localized areas across the country, a 2-3 week dry spell in mid-February in some parts of Central and Southern Regions, and an early cessation of rains in Shire Valley and Blantyre Agricultural Development Divisions (ADDs). The incessant rains received in most parts of the country resulted in leaching of nutrients and waterlogging. Flooding washed away crops in parts of Machinga, Salima, Karonga and Blantyre ADDs. The dry spell occurred at the critical tasselling to grain-filling stage of maize development. The early cessation of rains adversely affected late-maturing crops such as pigeon peas and late-planted crops such as local maize. Despite all these factors, the season was generally good.

[3] The agricultural sector in Malawi is divided into two sectors: smallholder and estate. In the smallholder sector, farmers produce their crops under a traditional land tenure system. They do not own their land, but they own the crops they produce. In the estate sector, estate owners hold long-term leases from the state. Estates hire workers or use tenants to produce tobacco and tea, the most common crops produced on estates. The estates also produce maize, and in recent years, estate maize production has grown in importance. Before 1996/97, the Ministry of Agriculture and Irrigation (MOAI) did not estimate production of estate sector maize. In that year, the MOAI launched a pilot survey of estate maize production and the first comprehensive, reliable estimates were available for the 1997/98 production year. Thus, throughout the discussion and in Table 1, smallholder and estate production are treated separately, but both are included in the 1998/99 food balance sheet.

Table 1: Comparison of 1997/98 Smallholder Gross Production with 1996/97 and Average (1992/93-1996/97)

	Maize	Rice	Sorghum	Whea	Total Cereals	Cassava	Sweet Potatoes	Irish Potatoes
1997/98 (MT)	1,534,326	68,802	41,473	1,842	1,650,364	829,821	1,432,383	120,338
1996/97 (MT)	1,226,478	65,690	39,514	1,339	1,336,771	713,876	858,129	116,884
Average (MT)	1,440,152	56,776	30,354	1,290	1,531,833	408,582	429,641	78,655
Difference (%) 1997/98 vs 1996/97	25	5	5	38	23	16	67	3
Difference (%) 1997/98 vs Avg	7	21	37	43	8	103	233	53

Source: Ministry of Agriculture and Irrigation

Maize, grown almost everywhere throughout the country, is the main staple food in Malawi. Smallholder maize production has gone up 25 percent, from 1,226,478 MT last year to 1,534,326 MT this year. This year's production is also 7 percent higher than average. The increase in production over last year is explained by the 19 percent increase in yield, from 994 kg/ha last year to 1,187 kg/ha this year. This is mainly attributed to increased input uptake as a result of input programs such as the Agricultural Productivity Program (APIP) and the active participation of agricultural input suppliers as a result of liberalization of agricultural input marketing. Hectarage under maize increased 5 percent in the same period. All ADDs experienced an increase in maize production with the exception of Salima, which registered a 10 percent drop from last year, attributable to a 15 percent decline in yield due to excessive rains. Karonga and Shire Valley ADDs, which had exceptionally low production last year due to drought, recorded increases of 114 and 95 percent, respectively, due to yield increases of 109 and 72 percent, respectively.

In addition to smallholder maize production, the estate sector is estimated to have produced 238,086 MT, bringing the total gross maize production for 1997/98 to 1,772,412 MT.

Production of rice and sorghum increased slightly from last year and is well above average. For rice, this is attributed to an increase in area planted as a result of favorable weather. Sorghum production would have been even higher had it not been for shortage of seed in the major sorghum-producing Shire Valley ADD, which resulted in a 50 percent drop in area planted compared to last year. The extension service actively promoted sorghum production this year as a precaution against the potential of El Niño-induced

drought, and farmers in Lilongwe ADD increased area planted by 300 percent compared to last year.

Cassava and sweet potato production increased dramatically, 103 and 233 percent, respectively, compared to average. The increase is a result of efforts by both government and NGOs to promote these drought-tolerant crops.

b. Stocks

At the beginning of the 1998/99 consumption year (April 1, 1998), estimated opening stocks were 12,266 MT of maize, comprised of 3,201 MT EU imported maize for the Strategic Grain Reserve (SGR), 590 MT of ADMARC commercial stocks and 8,475 MT of Government commercial stocks. This low level of opening stocks is largely the result of insufficient imports during the 1997/98 consumption year when Malawi imported only 76,891 MT of maize compared to an estimated maize-equivalent (ME) import requirement of 315,000 MT. The large gap between the estimated import requirement and actual imports resulted from disagreement about the size of the import requirement, Government financial constraints and delays in the arrival of contracted imports.

Because of the tight supply situation, on-farm stocks were estimated to be zero.

2. Total Utilization

Total food utilization for the year includes food use, feed and seed requirements, projected exports and requirements for replenishing the SGR.

a. Food Use

The total food requirement is determined by the size of the population and per capita food consumption requirements.

Population

The National Statistics Office estimates the country's 1998/99 mid-year population at 11,234,400. The population is derived from the 1987 census using a 3.2 percent growth rate that reflects the increased mortality due to the AIDS epidemic.

Consumption Requirements

The national food consumption requirement is calculated using an average per capita energy requirement of 2,200 kilocalories per person per day. This is the recommended norm for per capita daily energy intake, derived from FAO and WHO Consultative Group recommendations, and reflects an average consumption norm for all population (age and sex) groups. The 'Situation Analysis of Poverty in Malawi' also uses 2,200 kcal as the requirement per person/day. Using this per capita requirement, this translates into a per

capita ME consumption requirement of 236 kg and a total national ME consumption requirement of 2,616,942 MT.

b. Feed and Seed Requirements

Annual seed requirements are based on the Ministry of Agriculture and Irrigation recommended seed rates and the area planted to the different crops the previous season. The assumption is that the area planted to the different crops does not change significantly from year to year. The seed requirements for crops other than maize are converted to ME to estimate a total ME seed requirement of 30,478 MT.

In Malawi, livestock are not fed cultivated crops. Animals rely exclusively on pasture and crop residues, and thus animal feed does not appear in the food balance sheet.

c. Projected Exports

Malawi never exports large quantities of food commodities. However, there is informal trade between Malawi and its neighbors for which trade statistics are not available. The large maize production shortfall in Zambia for the 1997/98 production year could result in increased demand for maize and other food commodities from Malawi; however, the quantities concerned are not anticipated to be significant, and for food balance accounting purposes exports are estimated at zero.

When all the above factors are taken into consideration, total ME utilization is estimated at 2,647,420 MT.

3. Imports

a. Import Requirement

Given estimated domestic availability and total utilization requirements, the net ME import requirement is 129,247 MT. This is less than half last year’s net import requirement of 315,000 MT.

b. Projected Commercial Imports

Commercial imports include any government, donor, ADMARC or private imports that are to be sold on the market. As noted above, of the 153,415 MT of planned Government, EU and ADMARC maize imports for the 1997/98 consumption year, only 76,891 MT had arrived in country by end of March 1998. Of the remaining 76,524 MT, 46,773 MT arrived between April and October 1998 and are being counted as part of 1998/99 consumption year imports. The remaining 29,751 MT had been contracted by ADMARC, but ADMARC cancelled its order due to logistical problems.

Projected donor-financed commercial imports include 10,800 MT of maize donated by the Japanese for the SGR.

ADMARC announced plans to import another 120,000 MT of maize this year to meet the food production shortfall in the country. It received a commercial loan to finance the imports and had already received 30,400 MT by the end of October 1998.

This brings total projected ME commercial imports to 177,573 MT.

In addition to the official imports discussed above, Malawi receives informal (unrecorded) food imports from Mozambique, Tanzania and Zambia. While these imports are not included in the food balance, anecdotal information shows that informal food imports are important in Nsanje, Chikwawa, Mwanza, Mulanje and Namwera RDPs in Southern Region; Thiwi Lifidzi, Ntcheu and Mchinji RDPs in Central Region; and Central Mzimba, South Mzimba, Karonga and Chitipa RDPs in Northern Region.

c. Projected Food Aid Imports

As of the end of October 1998, WFP had projected to import 30,000 MT of maize for relief purposes. These imports will be funded by EU and the British government.

4. National Food Balance

The food balance is the difference between the import requirement and the projected commercial and food aid imports. This year, Malawi has a positive food balance of 78,355 MT. If all commercial imports arrive, the country will be in a much better position than last year, when 238,109 MT of the estimated utilization requirement remained unmet.

Table 2: National Food Balance for 1998/99 (April 1, 1998 – March 31,1999)

	Maize	Rice	Sorghum	Wheat	Cassava	Sweet potatoes	Irish potatoes	MAIZE EQUIVALENT
A. NET PRODUCTION (MT)	**1,506,533**	**42,670**	**37,326**	**1,658**	**751,280**	**651,597**	**78,257**	
Gross Production (MT)	1,772,392	68,823	41,473	1,842	834,755	1,447,994	120,396	
Post-harvest losses[4] (%)	15.0%	38.0%	10.0%	10.0%	10.0%	55.0%	35.0%	
B. STOCKS	**12,266**	**0**	**0**	**0**	**0**	**0**	**0**	
On-farm stocks (MT)	0	0	0	0	0	0	0	
Official stocks (MT)	9,065	0	0	0	0	0	0	
SGR stocks (MT)	3,201	0	0	0	0	0	0	
C. DOMESTIC AVAILABILITY (MT)	**1,518,799**	**42,670**	**37,326**	**1,658**	**751,280**	**651,597**	**78,257**	
D. KILOCALORIES/KG	**3,450**	**3,660**	**3,430**	**3,400**	**3,180**	**1,090**	**750**	
E. DOMESTIC AVAILABILITY (ME MT)	**1,518,799**	**45,268**	**37,109**	**1,634**	**692,484**	**205,867**	**17,012**	**2,518,173**
F. TOTAL UTILIZATION (ME MT)	**47,650**	**4,946**	**2,752**	**254**	**0**	**0**	**14,609**	**2,647,420**
Food Use (ME MT)								**2,616,942**
Seed Requirement (MT)	23,825	2,400	1,380	128	0	0	12,000	
Seed Requirement (ME MT)	23,825	2,546	1,372	126	0	0	2,609	**30,478**
SGR Replenishment (ME MT)	0	0	0	0	0	0	0	0
Projected Exports (MT)	0	0	0	0	0	0	0	0
Projected Exports (ME MT)	0	0	0	0	0	0	0	0
G. IMPORT REQUIREMENT (ME MT)								**(129,247)**
H. PROJECTED COMMERCIAL IMPORTS (MT)	177,573	0	0	0	0	0	0	**177,573**
Contracted (MT)	177,573	0	0	0	0	0	0	177,573
Received (MT) (Oct 31, 1998)	87,973	0	0	0	0	0	0	87,973
I. PROJECTED COMMERCIAL IMPORTS (ME MT)	177,573	0	0	0	0	0	0	**177,573**
J. PROJECTED FOOD AID IMPORTS	30,000	0	0	0	0	0	0	**30,000**
Proj/Prog Food Aid Imports (MT)	0	0	0	0	0	0	0	0
Emergency Food Aid Imports (MT)	30,000	0	0	0	0	0	0	30,000
K. PROJECTED FOOD AID IMPORTS (ME MT)	30,000	0	0	0	0	0	0	30,000
L. FOOD BALANCE (ME MT)								**78,355**

Source: Ministry of Agriculture and Irrigation/FEWS/NEC

[4] Post harvest losses are based on post harvest loss studies (Malawi-Germany Biocontrol and Post Harvest Project; Coda and Partners Post-Harvest Losses Study) as well as discussions with members of the food-security technical subcommittee.

B. Sub-national Food Availability

Maize is the major food crop in Malawi and as such the discussion of sub-national food availability focuses on maize. Despite the introduction of market reforms in 1987 that eliminated ADMARC's monopoly of marketing of agricultural inputs and produce, private trader participation in the buying and selling of maize has been limited. With the introduction of the price band[5] in 1995/96, private traders became more involved in maize trade, but their operations are still limited, leaving most of the people in rural areas still dependent on ADMARC, which maintains an extensive distribution network in the country.

But last year (1997/98), because of delays in importing maize, ADMARC was not able to keep its sales outlets supplied at the height of the hungry period (January to April), and market maize prices increased 2-fold over the course of the year. While this year (1998/99) ADMARC local maize purchases are not likely to exceed 60,000 MT, ADMARC is importing 120,000 MT of maize and this, along with carryover stocks from last year and stocks from this year's local purchases, should allow ADMARC to keep its sales outlets much better supplied than last year. ADMARC is selling maize at a subsidized price of K6.50/kg. At the end of October 1998, the subsidized price was well below the national average market price of MK7.94 and also below the regional averages of K7.69/kg, K7.43/kg and K8.81kg for the north, center and south, respectively. If the 120,000 MT arrives, it will greatly improve the food availability situation in the country. However, given their low income levels, not all those who need the maize will be able to buy enough quantities, even at the subsidized price.

III. SUBNATIONAL FOOD ACCESS

A. Approach to Measuring Food Access and Current Food Security Status

The CVA analysis is founded on a model of household income or, more specifically, strategies households use to acquire food. Although the conceptual framework is based on the household, the CVA takes the EPA administrative unit as the unit for analysis. The EPA was selected as the unit of analysis because EPA-level data are available, unlike household data, and because emergency responses to food insecurity or mitigation efforts often focus on administrative units rather than households. In taking the EPA as the unit of analysis, CVA conclusions apply to an 'average' household in the EPA but do not necessarily hold for the poorest and richest households within an EPA.

This CVA considers current food access of smallholder farm households in 154 EPAs. Within each EPA, it is assumed that agricultural households have similar livelihoods and face similar opportunities and constraints in meeting their food needs. Given the small size

[5] The price band defines the upper and lower limits within which market prices can fluctuate without Government intervention. If producer prices fall below the floor price, the Government is supposed to intervene to protect the producer. If prices increase above the ceiling price, the Government is expected to intervene by releasing SGR maize onto the market to protect the consumer.

of EPAs–the average size is 54,000 ha2 and the average population is 68,000 people–this is a reasonable assumption. Smallholder farm households acquire food directly through food crop production, indirectly through earning cash and purchasing food or through gifts and transfers. Their main source of cash or in-kind income is the sale of crop production, and this is the only component of smallholder income for which data are available. Most smallholders also earn an important share of income from paid labor (*ganyu*) and more limited shares from artisanal production and remittances. Smallholders living near Lake Malawi and other permanent water sources also earn some income from fishing. In the Northern Region and in the Shire Valley of the Southern Region, many households earn income from livestock sales, but in other parts of Malawi, most households have little or no income from livestock.

The approach to measuring food access for smallholders is as follows. For each EPA, income from cash and food crops is calculated in per capita kilocalorie terms. Food crops are converted directly into kilocalories using Malawi-specific conversion factors (table 3). Cash crops are first converted into monetary terms using ADMARC prices (table 4) and then converted into maize-equivalent kilocalories by 'purchasing maize'. The maize price used for this conversion is set above the subsidized maize price but below the likely seasonal high maize price. For example, for 1998, the subsidized price was MK6.50/kg and the market price increased from a seasonal low of MK4.25/kg in May to MK7.94 in October and is likely to top MK10.00/kg before the next harvest in April 1999. So the maize price used is MK8.50/kg. Since data for other common sources of income such as off-take from livestock, artisanal production, salaries and remittances, fishing and food aid are not available, no attempt is made to estimate their kilocalorie contribution to total income. However, the dual criteria (described below) for classifying EPAs as food secure or food insecure (see Terms Box) compensates for this data gap.

This CVA uses a dual criteria for determining in which EPAs an average household might be food insecure: current per capita income from food and cash crop production is converted to ME calories and compared to a consumption-based income threshold of 2,200 kilocalories[6] and to average ME income (1994/95-1996/97). Only those EPAs that during the current year produced below the threshold and at least 5 percent below their own historical average income are considered food insecure. Their degree of food insecurity depends on the magnitude of the deviation from average income. If current income is 80 to 95 percent of average, they are moderately food insecure and if it is less than 80 percent of average, they are highly food insecure. Populations are only categorized as extremely food insecure if field visits confirm that households would face famine without outside assistance. However, as indicated above, the CVA findings apply to an average household in the EPA. In EPAs identified as food secure, there are usually pockets of need that this analysis cannot identify. In addition, in those EPAs identified as food insecure, the entire population is not necessarily food insecure.

[6] The income threshold of 2,200 daily kilocalories is based on FAO and WHO Consultative Group recommendations for per capita daily energy intake and reflects an average consumption norm for all population (age and sex) groups.

FEWS Terms

In Current Vulnerability Assessments, FEWS classifies areas or specific socioeconomic groups within areas as food secure or food insecure. In food-secure areas, an average household can maintain normal seasonal consumption patterns in the current year without altering normal income or savings strategies. In food-insecure areas, this is not the case.

In order to assist decision makers in prioritizing emergency food allocations within countries and between countries, FEWS classifies the populations in food-insecure areas by their relative degree of food insecurity:

Extremely food-insecure populations have depleted their asset base to such an extent that without immediate outside assistance, they will face famine. Appropriate interventions include emergency food distributions and long-term rehabilitation programs.

Highly food-insecure populations will have to reduce consumption or draw down assets to such an extent that they could compromise their future food security. Appropriate interventions include nutritional support for vulnerable groups, food for work, income and asset support, and market interventions.

Moderately food-insecure populations can maintain normal seasonal consumption patterns in the current year, but only by drawing down savings or relying heavily on secondary income activities. Should market access or income from secondary activities be compromised, these populations might become highly food insecure in the current year. No interventions are necessary, but contingency plans should be developed to respond if conditions deteriorate.

The dual criteria accommodates the fact that the CVA only quantifies income from food and cash crop production – the only components of income for which regular and timely data are available. If on average, EPA-level income from crops always falls short of the threshold income, this most likely indicates that households have other non-crop income sources that bridge the gap. In Malawi, 88 EPAs do not on average meet the threshold through crop production (figure 2). Many of these EPAs are located in the Southern Region where the population density is highest, land holding sizes are the smallest and households rely more heavily on sources of income other than crop production.

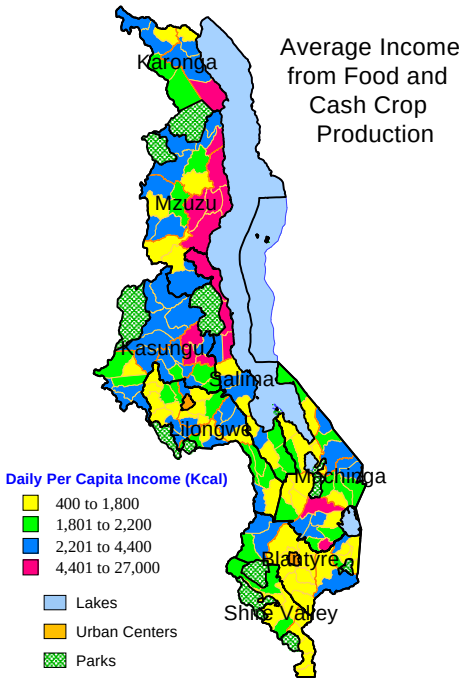


Figure 2

Unless there is some evidence to the contrary, the CVA assumes that the contribution of sources of income such as *ganyu*, livestock sales, artisanal production, fishing, remittances and transfers is largely static from year to year. It identifies significant negative deviations from average

in current crop income as evidence of potential problems.

Table 3: Kilocalorie Conversion Factors for Food Crops

Crop	Kcal/kg
maize	3,340
pulses	3,309
cassava	3,180
millet	3,180
rice	3,330
sorghum	3,430
sweet potatoes	1,090
Irish potatoes	850

Source: CTA and ECSA Food Composition Tables

Table 4: Hungry Period Market Maize Prices (MK/kg) and ADMARC Purchase Prices of Cash Crops

	1995/96	1996/97	1997/98	1998/99
Maize[7]	3.0	5.0	5.0	8.5
Cash Crops				
cotton	2.5	2.5	5.0	5.0
groundnuts	3.5	7.0	7.0	8.0
sunflower	0.7	2.6	4.0	3.0
tobacco	4.5	12	18	15

Source: ADMARC, Agro-Economic Survey (AES)

B. Summary of Current Food Security Status

The CVA found that for the 1998/99 consumption year 58 of 154 EPAs did not meet the income threshold through crop production. This represents an improvement compared to average and conforms with the general picture of better-than-average agricultural production during the 1997/98 production year. However, 22 of the 58 EPAs produced less than their historical average income and are classified as food insecure: 8 are moderately food insecure and 14 are highly food insecure. No EPAs are extremely food insecure (table 5). All of the food insecure EPAs are located in Southern and Central Regions. The main factors that contributed to a high degree of current food insecurity in these EPAs are decreased food and cash crop production compared to average. In 5 of these EPAs, total kilocalorie production was only 30 to 70 percent of average; in 10 it was 71 to 80 percent of average; and in 6 it was 80 to 95 percent of average. Eight of the 22 food-insecure EPAs are experiencing a second consecutive year of below-average income from crop production.

[7] Maize prices refer to average market prices a which consumers buy maize during the peak hunger period (December to March)

One factor that will exacerbate the food access difficulties in all EPAs that produced less than the income threshold this year is the high price of maize. During the current consumption year, the national average market maize price had risen from a seasonal low of MK4.18/kg in May to MK7.94 in October and is likely to top MK10.00/kg before the next harvest in April 1999. The October 1998 price is already two times the level of a year ago. Even the subsidized ADMARC maize price is more than double last year's level. Since the average household in these EPAs relies heavily on the market for food purchases, they will be hard-hit by higher prices, especially since there is no evidence that their non-crop sources of income have increased. The next section discusses some of the factors that have contributed to higher maize prices.

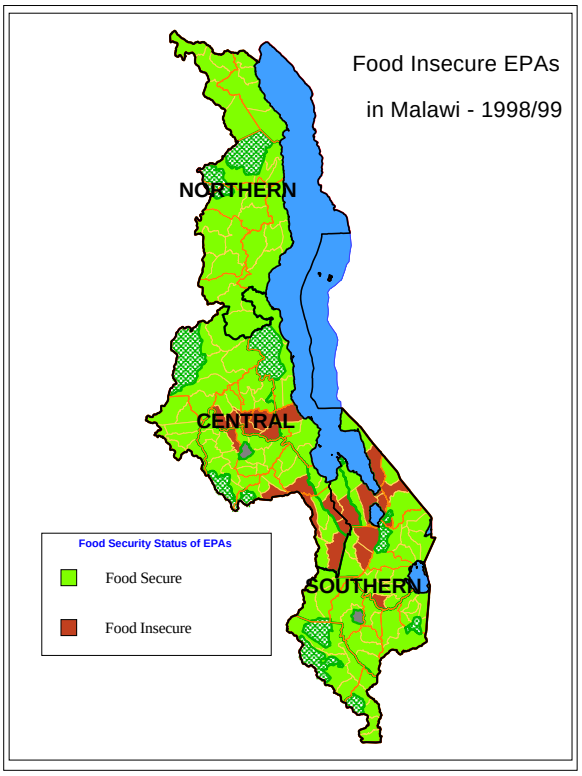


Figure 3

Table 5: Food-Insecure EPAs in Malawi in 1998/99 (April 1998 to March 1999)

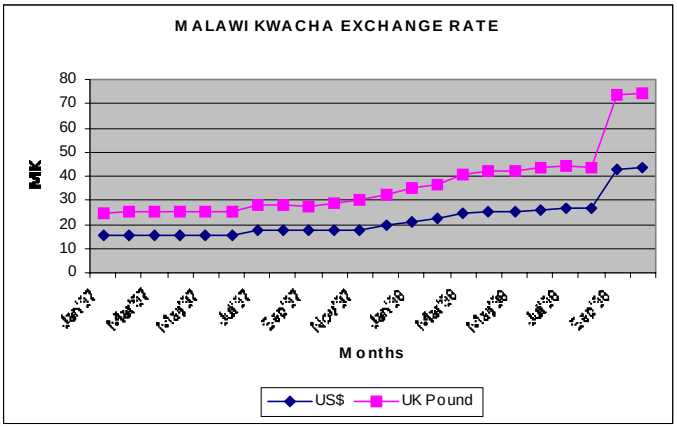
ADD	RDP	EPA	POPAG98	KCALTOTAL98	RELAVERAGE
Highly Food Insecure					
KASUNGU	DOWA EAST	CHIVALA	40,543	1,167	36
MACHINGA	MANGOCHI	LUNGWENA	69,609	883	52
MACHINGA	MANGOCHI	MAIWA	90,459	788	53
MACHINGA	BALAKA	ULONGWE	80,097	832	63
KASUNGU	DOWA WEST	CHISEPO	49,721	1,858	63
KASUNGU	DOWA WEST	MPONELA	64,878	1,872	71
KASUNGU	DOWA EAST	NACHISAKA	74,112	1,554	73
LILONGWE	NTCHEU	MANJAWIRA	80,920	1,307	74
SALIMA	BWANJE VALLEY	BILIRA	52,296	1,375	76
KASUNGU	DOWA WEST	MNDOLERA	64,973	1,653	76
KASUNGU	DOWA EAST	MVERA	72,866	1,433	77
MACHINGA	MANGOCHI	NASENGA	113,297	820	78
MACHINGA	NAMWERA	NTIYA	78,659	1,482	78
LILONGWE	THIWI LIFIDZI	LOBI	66,030	2,162	79
		Total Population	998,459		
Moderately Food Insecure					
LILONGWE	NTCHEU	TSANGANO	46,762	2,286	80
SALIMA	BWANJE VALLEY	CHILIPA	51,464	1,640	80
MACHINGA	BALAKA	MPILISI	59,142	1,271	83
MACHINGA	ZOMBA	DZAONE	115,562	1,836	84
SALIMA	BWANJE VALLEY	SHARPEVALE	62,324	1,427	91
LILONGWE	LILONGWE WEST	M'NGWANGWA	68,305	1,791	92
LILONGWE	NTCHEU	NJOLOMOLE	47,991	1,838	94
SALIMA	SALIMA	KHOMBEDZA	111,352	1,403	95
		Total Population	562,902		

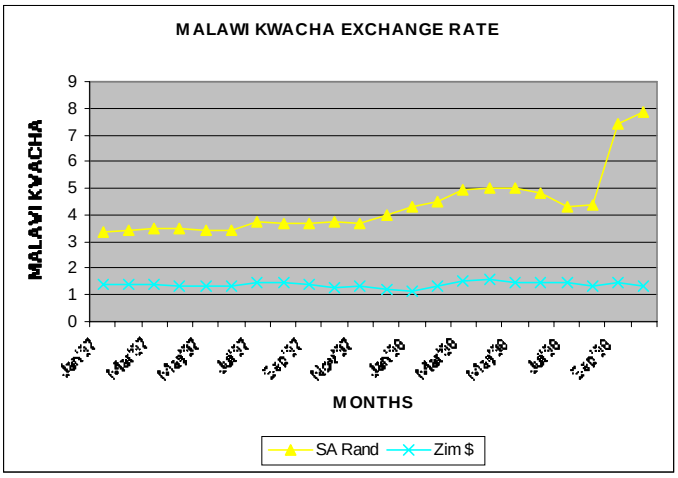
IV. Risk and Vulnerability

This section outlines some issues that pose potential risks to food availability and access through the end of 1998/99. These risk factors could have significant effects on food security and may increase the vulnerability of many people if left unchecked.

A. Exchange rate instability and inflation

The Malawi kwacha continues to depreciate against other currencies such as the US dollar and the British pound. The kwacha continued to depreciate even at the time of the tobacco sales (July-August), contrary to expectations that it would appreciate as a result of foreign earnings from tobacco sales. Towards the end of August, the Malawi kwacha plunged by about 56% from MK27/US$ to MK42/US$. Figure 4 shows the Malawi kwacha exchange rate against currencies of major trading partners.





Source: National Bank of Malawi
Figure 4

According to the Reserve Bank of Malawi, the big drop in the value of the kwacha was due to a MK2 billion (US$80 million) drop in projected tobacco export earnings and to a lesser extent, a fall in the value of allied currencies (the South African rand and the Zimbabwean dollar) against the US dollar. The drop in the tobacco foreign exchange earnings is due to low prices offered for the crop this season.

The devaluation of the kwacha has resulted in skyrocketing of commodity prices, including maize prices, which went from MK3.90/kg to MK6.50/kg between September 1997 and September 1998. The new prices will have serious implications on household food security as the purchasing power of consumers continues to be eroded.

Petrol and diesel prices also went up by 69 and 77 percent respectively, triggering a second round of price increases, including that of food. Transport costs went up by between 60 and 100 percent. Considering that most raw materials, fuel, fertilizers and consumer goods are imported and that the export base is narrow (limited to mainly

tobacco and tea), the devaluation of the local currency is exerting a heavy toll on the consumers. This is so because the devaluation has been translated into large increases in domestic food prices and prices of other imported consumer products while wages and salaries remain largely unadjusted. This scenario has eroded the purchasing power of most of the population, including smallholder farmers who cannot afford to buy food and agricultural inputs necessary for food production in the coming (1990/00) season. Fertilizer prices are particularly affected by the devaluation.

ADMARC fertilizer prices were raised twice in 1998. First in May, prices were increased between 21 and 51 percent (table 6). This raised concern, as most of the smallholder farmers could not afford these high prices of inputs. As farmers were struggling with this price hike, the kwacha devaluation took place and ADMARC raised input prices by another 47 to 68 percent. The net effect is that the increase in fertilizer prices from last season is between 94 and 136 percent. To help farmers get access to these inputs, the government has come up with the starter pack program.

Table 6: CHANGES IN FERTILIZER PRICES

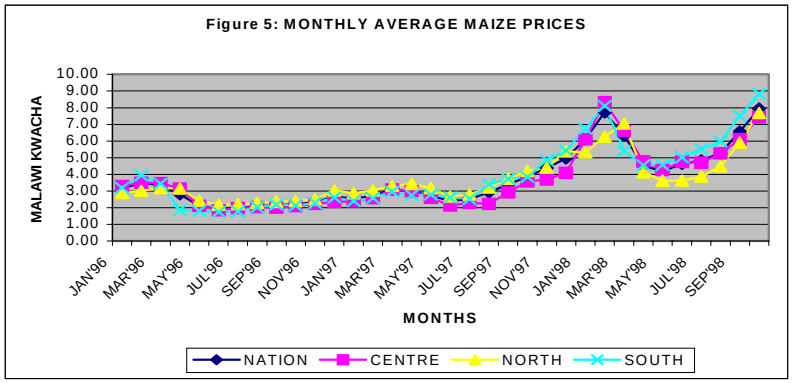
Fertilizer Type	1997 (MK/50-kg)	May 1998 (MK/50-kg)	September 1998 (MK/50-kg)	Percentage change between		
				May 1998 and 1997	September 1998 and May 1998	September 1998 and 1997
Sulphate of Ammonia	320	410	620	28	51	94
CAN	295	445	695	51	56	136
UREA	385	570	840	48	47	118
23:21:0:4S	395	570	895	44	57	127
D Compound	n/a	540	905	n/a	68	n/a

Source: ADMARC

B. High Food Prices

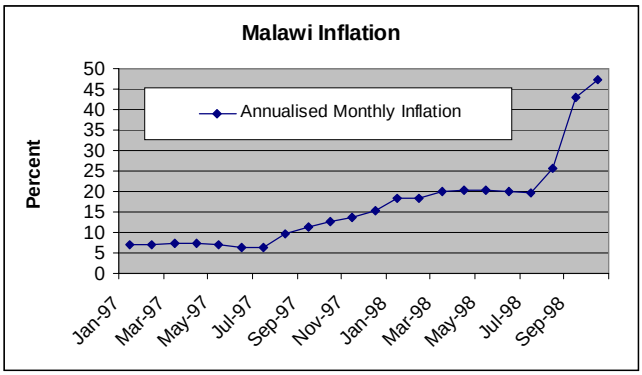
The maize price trends this year show a sharp increase in the local market maize prices (figure 5), an indication of a tight food security situation this year. Usually maize prices fall at harvest period through May to June/July and begin increasing again around August/September. This season however, the prices began an upward turn earlier (around June/July 1998), a sign of increasing demand for the crop.

Caution should be exercised in interpreting these price trends as some farmers are holding onto their maize to ensure that they have enough to take them through the season to avoid repetition of last year's experience when they could not find maize to buy in ADMARC markets. Others are keeping stocks to sell later in the season when prices are high. In addition, general inflation should also be taken into account.



Source: Ministry of Agriculture and Irrigation
Figure 5

The national rate of inflation went up from about 6 percent in July 1997 to 20 percent in March 1998 (figure 6). The continued depreciation of the kwacha has fuelled inflationary pressures on the economy. After the 56 percent devaluation towards the end of August 1998, the national inflation rate jumped from 26 to 48 percent in October.



Source: National Statistical Office
Figure 6

V. ACTIONS REQUIRED

A. Planned Actions

WFP, the key institution for relief distributions in the country, carries out its activities through various institutions, depending on the type of interventions. Using the CVA findings, GOM in collaboration with the WFP issued an EMOP aimed at addressing the transitory food-insecurity problem created by low food production and sharp increases in food prices and other essential commodities. The emergency safety net program will target 47 EPAs identified in the CVA as having produced below 2,200 Kcal. It is designed to provide short-term nutritional benefits by providing access to food, particularly in the lean period of November to April, just before the next harvest.

The project will target 103,000 farm families. Each household will receive a 50 kg bag of maize/month, and households with malnourished children will also receive 9kg of Likuni Phala (a high protein ration) per child/month. The total requirements for the program are 30,000 MT maize and 3,600 MT Likuni Phala. The EU and DFID of the British Government have pledged to meet the cost of the operation.

The Vulnerable Group Feeding (VGF) that was started last year by WFP is still continuing, albeit at a reduced scale. This involves the feeding of severely malnourished children in the Nutrition Rehabilitation Units (NRUs) at the health centers. The project is implemented through the Ministry of Health and Population.

B. Need for Additional Assessments

Considering that this CVA relies heavily on analysis of secondary crop production data, the situation in all the EPAs, including those considered as food secure, should be monitored. Field visits should be made to verify these findings. These visits are planned for both food-secure and food-insecure EPAs. This is necessary because even in the food secure EPAs, there are always pockets of food insecurity that are not captured in the EPA analysis and, to better appreciate the situation at the lower level, additional information needs to be collected, particularly in areas suspected to have access problems. In addition, during the last quarter of the previous marketing year, there were acute food shortage problems due to late arrival of ADMARC imported maize, and this resulted in early harvesting of green maize. Anecdotal information suggests that this practice resulted in substantial amounts of maize being consumed before harvest, thereby reducing the potential harvest. Unfortunately this was not captured in the final crop estimates and in some areas, particularly in the south and parts of the center, the impact on what was finally harvested could be significant.

C. Constraints to Providing Assistance

Since the relief program is being implemented in so many areas, supplies must be transported to the distribution centers before the peak of the rainy season, when some areas will become inaccessible due to the deterioration of the roads and bridges. For instance, during the 1997/98 targeted safety net program, it was extremely difficult to deliver relief food to 3 targeted EPAs in Chitipa District due to poor road conditions.

Appendix 1

Table 7 : Final National Food Balance for 1997/98 (April 1, 1997 – March 31,1998)

	Maize	Rice	Sorghum	Wheat	Cassava	Sweet potatoes	Irish potatoes	MAIZE EQUIVALENT
A. NET PRODUCTION (MT)	**1,149,066**	**40,729**	**35,564**	**1,205**	**648,235**	**387,038**	**76,064**	
Gross Production (MT)	1,351,842	65,692	39,516	1,339	720,261	860,085	117,022	
Post-harvest losses (%)	15.0%	38.0%	10.0%	10.0%	10.0%	55.0%	35.0%	
B. STOCKS (MT)	**283,246**	**7,263**	**5,471**	**0**	**0**	**0**	**0**	
On-farm stocks (MT)	204,346	7,263	5,471	0	0	0	0	
Official stocks (MT)	0	0	0	0	0	0	0	
SGR stocks (MT)	78,900	0	0	0	0	0	0	
C. DOMESTIC AVAILABILITY (MT)	**1,432,312**	**47,992**	**41,035**	**1,205**	**648,235**	**387,038**	**76,064**	
D. KILOCALORIES/KG	**3,450**	**3,660**	**3,430**	**3,400**	**3,180**	**1,090**	**750**	
E. DOMESTIC AVAILABILITY (ME MT)	**1,432,312**	**50,913**	**40,798**	**1,188**	**597,503**	**122,282**	**16,536**	**2,261,531**
F. TOTAL UTILIZATION (MT)	**47,650**	**4,946**	**2,752**	**254**	**0**	**0**	**14,609**	**2,576,570**
Food Use (MT)								**2,546,092**
Seed Requirement (MT)	23,825	2,400	1,380	128	0	0	12000	
Seed Requirement (ME MT)	23,825	2,546	1,372	126	0	0	2,609	**30,478**
SGR Replenishment (MT)								
Projected Exports (MT)								
Projected Exports (ME MT)								
G. NET IMPORT REQUIREMENT (ME MT)								**(315,039)**
H COMMERCIAL IMPORTS (MT) correct figure should be the amount received by March 31, 1998		0	0	0	0	0	0	
Contracted (MT)	153,415	0	0	0	0	0	0	153,415
Received (MT) (Mar 31, 1998)		0	0	0	0	0	0	
I. COMMERCIAL IMPORTS (ME MT)	153,415	0	0	0	0	0	0	
J. FOOD AID IMPORTS (MT)	0	0	0	0	0	0	0	**0**
Proj/Prog Food Aid Imports (MT)	0							**0**
Emergency Food Aid Imports (MT)								
K. FOOD AID IMPORTS (ME)	0	0	0	0	0	0	0	**0**
L. FOOD BALANCE (ME MT)								**(161,624)**

Sources: Ministry of Agriculture and Irrigation/FEWS/NEC

Appendix 2

Table 8: List of EPAs for Reference Map

RDP	DISTRICT	EPA	EPA Number
BALAKA	MACHINGA	BAZALE	1
DEDZA HILLS	DEDZA	BEMBEKE	2
BWANJE VALLEY	NTCHEU	BILIRA	3
RUMPHI	RUMPHI	BOLERO	4
DOWA WEST	DOWA	BOWE	5
C. MZIMBA	MZIMBA	BULALA	6
RUMPHI	MZIMBA	BWENGU	7
THIWI LIFIDZI	DEDZA	CHAFUMBA	8
KASUNGU	KASUNGU	CHAMAMA	9
S. MZIMBA	MZIMBA	CHAMPHIRA	10
LILONGWE EAST	LILONGWE	CHIGONTHI	11
KAWINGA	MACHINGA	CHIKWEO	12
NKHATABAY	NKHATABAY	CHIKWINA	13
LILONGWE WEST	LILONGWE	CHILAZA	14
BWANJE VALLEY	MANGOCHI	CHILIPA	15
ZOMBA	ZOMBA	CHINGALE	16
SALIMA	SALIMA	CHINGULUWE	17
NKHATABAY	NKHATABAY	CHINTHECHE	18
MCHINJI	MCHINJI	CHIOSHYA	19
SALIMA	SALIMA	CHIPOKA	20
NTCHISI	NTCHISI	CHIPUKA	21
CHITIPA	CHITIPA	CHISENGA	22
DOWA WEST	DOWA	CHISEPO	23
LILONGWE EAST	LILONGWE	CHITEKWELE	24
NKHATABAY	NKHATABAY	CHITHEKA	25
LILONGWE EAST	LILONGWE	CHITSIME	26
DOWA EAST	DOWA	CHIVALA	27
LILONGWE EAST	LILONGWE	CHIWAMBA	28
KASUNGU	KASUNGU	CHULU	29
LILONGWE WEST	LILONGWE	DEMELA	30
CHIKWAWA	CHIKWAWA	DOLO	31
ZOMBA	ZOMBA	DZAONE	32
S. MZIMBA	MZIMBA	EMFENI	33
C. MZIMBA	MZIMBA	ESWAZINI	34
C. MZIMBA	MZIMBA	EUTHINI	35
BWANJE VALLEY	DEDZA	GOLOMOTI	36
THIWI LIFIDZI	DEDZA	KABWAZI	37
CHIKWAWA	CHIKWAWA	KALAMBO	38
NTCHISI	NTCHISI	KALIRA	39
MCHINJI	MCHINJI	KALULU	40
KASUNGU	KASUNGU	KALULUMA	41
LILONGWE WEST	LILONGWE	KAMBANIZITHE	42
NTCHEU	NTCHEU	KANDEU	43
DEDZA HILLS	DEDZA	KANYAMA	44
DEDZA HILLS	DEDZA	KAPHUKA	45
KARONGA	KARONGA	KAPORO NORTH	46
KARONGA	KARONGA	KAPORO SOUTH	47
KARONGA	KARONGA	KARONGA CENTRAL	48
KARONGA	KARONGA	KARONGA SOUTH	49

RDP	DISTRICT	EPA	EPA Number
PHALOMBE	MULANJE	KASONGO	50
KASUNGU	KASUNGU	KASUNGU CHIPALA	51
NAMWERA	MANGOCHI	KATULI	52
CHITIPA	CHITIPA	KAVUKUKU	53
SALIMA	SALIMA	KHOMBEDZA	54
S.MZIMBA	MZIMBA	KHOSOLO	55
NKHOTAKOTA	NKHOTAKOTA	LINGA	56
THIWI LIFIDZI	DEDZA	LINTHIPE	57
SHIRE HIGHLANDS	BLANTYRE	LIRANGWE	58
KASUNGU	KASUNGU	LISASADZI	59
MWANZA	MWANZA	LISUNGWI	60
CHIKWAWA	CHIKWAWA	LIVUNZU	61
THIWI LIFIDZI	DEDZA	LOBI	62
CHITIPA	CHITIPA	LUFITA	63
MANGOCHI	MANGOCHI	LUNGWENA	64
DOWA WEST	DOWA	MADISI	66
NSANJE	NSANJE	MAGOTI	67
MANGOCHI	MANGOCHI	MAIWA	68
NSANJE	NSANJE	MAKHANGA	69
NTCHISI	NTCHISI	MALOMO	70
ZOMBA	ZOMBA	MALOSA	71
NTCHEU	NTCHEU	MANJAWIRA	72
C. MZIMBA	MZIMBA	MANYAMULA	73
SHIRE HIGHLANDS	THYOLO	MASAMBANJATI	74
NAMWERA	MANGOCHI	MASUKU	75
SHIRE HIGHLANDS	THYOLO	MATAPWATA	76
ZOMBA	ZOMBA	MAYAKA NGWERERO	123
DEDZA HILLS	DEDZA	MAYANI	77
S. MZIMBA	MZIMBA	MBAWA	78
CHIKWAWA	CHIKWAWA	MBEWE	79
KAWINGA	MACHINGA	MBONECHERA	80
MANGOCHI	MANGOCHI	MBWADZULU	81
CHIKWAWA	CHIKWAWA	MIKALANGO	82
MCHINJI	MCHINJI	MIKUNDI	83
LILONGWE WEST	LILONGWE	MING'ONGO	84
CHITIPA	CHITIPA	MISUKU	85
CHIKWAWA	CHIKWAWA	MITOLE	86
C. MZIMBA	MZIMBA	MJINGE	87
MCHINJI	MCHINJI	MKANDA	88
LILONGWE WEST	LILONGWE	MLOMBA	89
MCHINJI	MCHINJI	MLONYENI	90
DOWA WEST	DOWA	MNDOLERA	91
LILONGWE WEST	LILONGWE	M'NGWANGWA	65
SHIRE HIGHLANDS	CHIRADZULU	MOMBEZI	92
NKHATABAY	NKHATABAY	MPAMBA	93
NSANJE	NSANJE	MPATSA	94
LILONGWE EAST	LILONGWE	MPENU	95
RUMPHI	MZIMBA	MPHEREMBE	96
RUMPHI	RUMPHI	MPHOMPHA	97
MANGOCHI	MANGOCHI	MPILIPILI	98
BALAKA	MACHINGA	MPILISI	99
PHALOMBE	MULANJE	MPINDA	100
LILONGWE WEST	LILONGWE	MPINGU	101

RDP	DISTRICT	EPA	EPA Number
ZOMBA	ZOMBA	MPOKWE	102
DOWA WEST	DOWA	MPONELA	103
MCHINJI	MCHINJI	MSITU	104
ZOMBA	ZOMBA	MSONDOLE	105
BWANJE VALLEY	DEDZA	MTAKATAKA	106
MANGOCHI	MANGOCHI	MTHIRAMANJA	107
RUMPHI	RUMPHI	MUHUJU	108
MULANJE	MULANJE	MULANJE SOUTH	109
MULANJE	MULANJE	MULANJE WEST	110
DOWA EAST	DOWA	MVERA	111
CHITIPA	CHITIPA	MWAMKUMBWA	112
NKHOTAKOTA	NKHOTAKOTA	MWANSAMBO	113
MWANZA	MWANZA	MWANZA	114
DOWA EAST	DOWA	NACHISAKA	115
LILONGWE EAST	LILONGWE	NAKACHOKA	116
PHALOMBE	MULANJE	NAMINJIWA	117
BWANJE VALLEY	MANGOCHI	NAMKUMBA	118
KAWINGA	MACHINGA	NAMPEYA	119
KAWINGA	MACHINGA	NANYUMBU	120
MANGOCHI	MANGOCHI	NASENGA	121
MWANZA	MWANZA	NENO	122
NTCHEU	NTCHEU	NJOLOMOLE	124
NKHATABAY	NKHATABAY	NKHATABAY BOMA	125
PHALOMBE	MULANJE	NKHULAMBE	126
NKHOTAKOTA	NKHOTAKOTA	NKHUNGA	127
KAWINGA	MACHINGA	NSANAMA	128
NSANJE	NSANJE	NSANJE	129
NTCHEU	NTCHEU	NSIPE	130
RUMPHI	RUMPHI	NTCHENACHENA	131
NTCHISI	NTCHISI	NTCHISI BOMA	132
LILONGWE WEST	LILONGWE	NTHONDO	133
NAMWERA	MANGOCHI	NTIYA	134
SHIRE HIGHLANDS	BLANTYRE	NTONDA	135
ZOMBA	ZOMBA	NTUBWI	136
NSANJE	NSANJE	NYACHILENDA	137
KAWINGA	MACHINGA	NYAMBI	138
LILONGWE EAST	LILONGWE	NYANJA	139
BALAKA	MACHINGA	PHALULA	140
KASUNGU	KASUNGU	SANTHE	141
BWANJE VALLEY	NTCHEU	SHARPEVALE	142
LILONGWE WEST	LILONGWE	SINYALA	143
PHALOMBE	MULANJE	TAMANI	144
SALIMA	SALIMA	TEMBWE	145
ZOMBA	ZOMBA	THONDWE	146
SHIRE HIGHLANDS	CHIRADZULU	THUMBWE	147
SHIRE HIGHLANDS	THYOLO	THYOLO BOMA	148
NTCHEU	NTCHEU	TSANGANO	149
LILONGWE WEST	LILONGWE	UKWE	150
BALAKA	MACHINGA	ULONGWE	151
PHALOMBE	MULANJE	WARUMA	152
NKHOTAKOTA	NKHOTAKOTA	ZIDYANA	153
RUMPHI	MZIMBA	ZOMBWE	154